

REMARKS

Claims 1-12 remain pending in the application.

Allowable Claim

The Applicants thank the Examiner for the indication that claims 3 and 4 recite allowable subject matter. Claim 3 is amended herein to be in independent form. Claims 3 and 4 are now in condition for allowance, with claim 4 allowable by dependency.

Claims 1, 2 and 5-12 over Lee in view of Bohnke

In the Office Action, claims 1, 2 and 5-12 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Lee et al., U.S. Patent No. 6,341,140 ("Lee") in view of Bohnke, U.S. Patent No. 6,160,791 ("Bohnke"). The Applicants respectfully traverse the rejection.

Applicant's claims 1, 2, 5 and 6 recite a bandpass filter adapted to remove a digital portion of a signal corresponding to at least one digital channel from a received OFDM signal. Similarly, claims 7-12 recite filtering out a digital portion of a signal corresponding to at least one digital channel from a received OFDM signal for frame synchronization. Such elements are not taught or suggested by Lee or Bohnke individually or in combination.

Regarding Lee, the Examiner alleges Lee discloses at Fig. 2 User Digital Data that each bandpass filter 21-1 through 21-m is centered at frequencies f1 through fm in order to pass only the digital channel (Office Action, page 3). The Applicants respectfully disagree.

The Office Action's statements to the contrary notwithstanding, the text describing Fig. 2 fails to even mention User Digital Data. Instead, Lee discloses the bandwidth of the bandpass filters is set to a range to extent to pass only the bandwidth of each carrier so as to detect the strength of the signal received at each frequency (Lee, col. 3, lines 30-33). Lee's bandpass filters are used to find the strength of a signal at each frequency **NOT** for filtering out a digital portion, much less for removing and filtering out a digital portion of a signal

corresponding to at least one digital channel from a received OFDM signal for frame synchronization, as recited by claims 1, 2 and 5-12.

Furthermore, The Examiner alleges Lee discloses an OFDM signals since each of the inputs are orthogonal to the others. The Applicants respectfully disagree.

Even if Lee discloses inputs that are orthogonal to others, which Lee does not, still Lee does not disclose an OFDM signal. More specifically, an OFDM signal is a signal that is orthogonal frequency division multiplexed. Simply having orthogonal inputs does not create a signal that is orthogonal frequency division multiplexed, i.e., a signal in which frequency division multiplexing is employed. Moreover, the Applicants are claiming a received OFDM signal. Lee discloses a transmitter in Fig. 1, with a corresponding receiver in Fig. 2. Since Lee's Fig. 1 circuit fails to produce an OFDM signal, it must naturally follow that Lee fails to teach or suggest an OFDM signal, much less a received signal is an OFDM signal, as recited by claims 1, 2 and 5-12.

The deficiency of Lee is not made up for by Bohnke. Bohnke discloses using a cyclic extension for synchronization. Bohnke fails to even mention a bandpass filter, much less a bandpass filter for removing and filtering out a digital portion of a signal corresponding to at least one digital channel from a received OFDM signal, as recited by claims 1, 2 and 5-12.

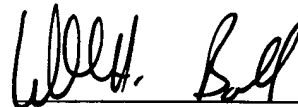
Neither Lee nor Bohnke, either alone or in combination, disclose, teach or suggest a bandpass filter for removing and filtering out a digital portion of a signal corresponding to at least one digital channel from a received OFDM signal, as recited by claims 1, 2 and 5-12.

Accordingly, for at least all the above reasons, claims 1, 2 and 5-12 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully Submitted,



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